

Claims

[Claim 1] A mounting apparatus for fixing a semiconductor wafer to a ring frame by sticking a dicing tape to said ring frame in a state that the semiconductor wafer is disposed in an inside area of said ring frame disposed on a table, comprising:

a supporting means for supporting a strip material attaching a film for forming dicing tapes stuck on one surface of a base sheet;

a pre-cut means for forming a dicing tape by forming a cut in said film in accordance with the size of said ring frame; and

a sticking means for fixing the semiconductor wafer to the ring frame by peeling off said dicing tape from the base sheet and sticking the dicing tape onto the ring frame.

[Claim 2] The mounting apparatus according to claim 1, wherein a tension control means is disposed between said supporting means and a pre-cut means, wherein

the tension control means comprises a dancer roller, which is movable vertically so as to allow the strip material to be fed out toward said sticking means while giving tension due to its own weight to said strip material, and first and second sensors for detecting a raised position and a lowered position of

the dancer roller respectively, and wherein,

when the first sensor detects said dancer roller at the raised position, said supporting means feeds out the strip material by a predetermined amount to lower the dancer roller, and when the second sensor detects the dancer roller at the lowered position, said supporting means stops feeding out the strip material therefrom.

[Claim 3] A mounting method in which a ring frame is disposed on a table, a semiconductor wafer is disposed in an inside area of the ring frame, and a dicing tape is stuck onto said ring frame to fix the semiconductor wafer to the ring frame, comprising the steps of:

forming a cut in said film in accordance with the size of said ring frame in a process of feeding out a strip material attaching a film for forming dicing tapes stuck on one surface of a base sheet;

peeling off the dicing tape formed inside said cut from the base sheet; and

moving the dicing tape and said table relative to each other to stick said dicing tape onto the semiconductor wafer and the ring frame, thereby fixing the semiconductor wafer to the ring frame.

[Claim 4] The mounting method according to claim 3,

wherein a tension control means is disposed between said supporting means and a pre-cut means, wherein,

the tension control means comprises a dancer roller, which is movable vertically so as to allow said strip material to be fed out toward said sticking means while giving tension due to its own weight to said strip material, and first and second sensors for detecting a raised position and a lowered position of the dancer roller respectively, and wherein,

the following operations are repeated; i.e., when the first sensor detects said dancer roller at the raised position, said supporting means feeds out the strip material of a predetermined amount to lower the dancer roller, and when the second sensor detects the dancer roller at the lowered position, said supporting means stops feeding out the strip material therefrom.